
A New Species of Cyperaceae (Cryptangieae) from the Venezuelan Guayana

Gerrit Davidse

Missouri Botanical Garden, P.O. Box 299, St. Louis, Missouri 63166, U.S.A.

ABSTRACT. *Lagenocarpus amazonicus* (Cyperaceae), from Amazonas, Venezuela, is described and illustrated. It differs most notably from other species of section *Junciformes* in its strongly pubescent rhizome sheaths and connate stamen filaments.

Lagenocarpus Nees is a tropical American genus of the tribe Cryptangieae that has been most recently revised by Koyama & Maguire (1965) and Koyama (1972), who recognized 28 species in four sections. The genus has two centers of species diversity: the Guayana region and southeastern Brazil in the area between the states of Bahia, Minas Gerais, and São Paulo.

A review of the genus for the *Flora of the Venezuelan Guayana* brought to my attention a previously unrecognized species that I am naming *L. amazonicus*, based on its occurrence in Territorio Federal Amazonas, Venezuela.

Lagenocarpus amazonicus Davidse, sp. nov.

TYPE: Venezuela. Territorio Federal Amazonas: Depto. Río Negro, Cerro Aratitiyope, aprox. 70 km al SSW de Ocamo, 2°10'N, 65°34'W, con riachuelos afluyente al río Manipitare, piedra ignea, 990–1,670 m, 24–28 Feb. 1984, *J. Steyermark, P. Berry & F. Delascio 130049* (holotype, MO; isotypes, NY, VEN). Figure 1.

Herba perennis rhizomatosa, rhizomate 8–14 mm in diametro squamis dense pubescentibus obtecto, culmis 22–78 cm longis, basin 1.7–2.9 mm latis. Laminae foliorum 3–7.5 cm longae, 2.0–4.0 mm latae. Spiculae masculinae 4–5.5 mm longae; glumis 3.2–4.5 mm longis; staminibus 2, filamentis connatis, antheris 1.4–1.7 mm longis. Spiculae femineae 2.5–3.0 mm longae; glumis 3–4, 2.0–3.0 mm longis. Achenia 1.8–2.3 mm longa, laevia vel minute papillosa apicem versus; basi styli 0.3–0.4 mm longa, cylindrica, puberula apicem versus.

Perennial, rhizomatous, monoecious herb. Rhizomes 9 cm long, 8–14 mm thick, horizontal, producing numerous, slender roots, the segments short and swollen and covered by densely appressed-pubescent scales. Culms 22–78 cm long, 1.7–2.9 mm wide at the base, erect, trigonous, glabrous; nodes numerous; lower 4–6 internodes elongated to 15 cm, bearing somewhat loose, bladeless sheaths to-

ward the base, the blade more fully developed distally; upper 10–20 internodes not elongated, the sheaths closely overlapping and bearing fully developed blades. Sheaths closed, puberulent or glabrous, eligulate; contraligule 0.5–1.5 mm, nerved to the apex; blades 3–7.5 cm long, 2.0–4.0 mm wide, widest at the base, divergent, acuminate, abaxially puberulent along the midvein. Inflorescences small, unbranched to 3-branched umbellate clusters borne from the uppermost nodes, with the pedicels or branches exerted from the sheaths. Spikelets unisexual. Male spikelets 4–5.5 mm long, 0.7–1.1 mm wide, solitary, binary, or rarely ternate, borne from nodes below those bearing the female spikelets, oblong-ellipsoid, dark brown, many-flowered; male floral bracts 3.2–4.5 mm long, 1–1.3 mm wide, densely imbricate, lanceolate, membranous, 1-nerved, the lower sterile and aristate to 1 mm, the 2 or 3 distal fertile and subtending male flowers, smaller and more delicate. Male flowers consisting of 2 stamens; filaments slightly longer than the subtending floral bract, connate; anthers 1.4–1.7 mm long, separate, basifixed, with a minute tuft of hairs at the apex. Female spikelets 2.5–3.0 mm long, solitary or rarely binary; female floral bracts 3 or 4, 2.0–3.0 mm long, 0.6–1.1 mm wide, lanceolate to lanceolate-ovate, membranous, glabrous or puberulent on the midvein and apically ciliate, 1-nerved, the lowermost with an awn to 1 mm long, the distal floral bracts shorter, thinner and with less developed awns or acute. Female flower a solitary pistil; styles 3. Achenes 1.8–2.3 mm long, 0.9–1.0 mm wide, about as long as the floral bracts, smooth or minutely papillose distally, obovoid, trigonous, each face with a basal depression; style base persistent, 0.3–0.4 mm long, cylindrical, minutely puberulent at the tip; perianth absent or rudimentary; ovary 0.8–0.9 mm long, 0.3 mm wide, oblong in outline, sharply trigonous.

Paratypes. VENEZUELA. AMAZONAS: Cumbre del Cerro Autana, 4°52'N, 67°27'W, 1,230–1,240 m, sabana y afloramientos expuestos, 20–22 Sep. 1971, *J. A. Steyermark 105151* (MO, VEN).

By virtue of its culms with many elongated internodes, the lower leaves with no or reduced leaf

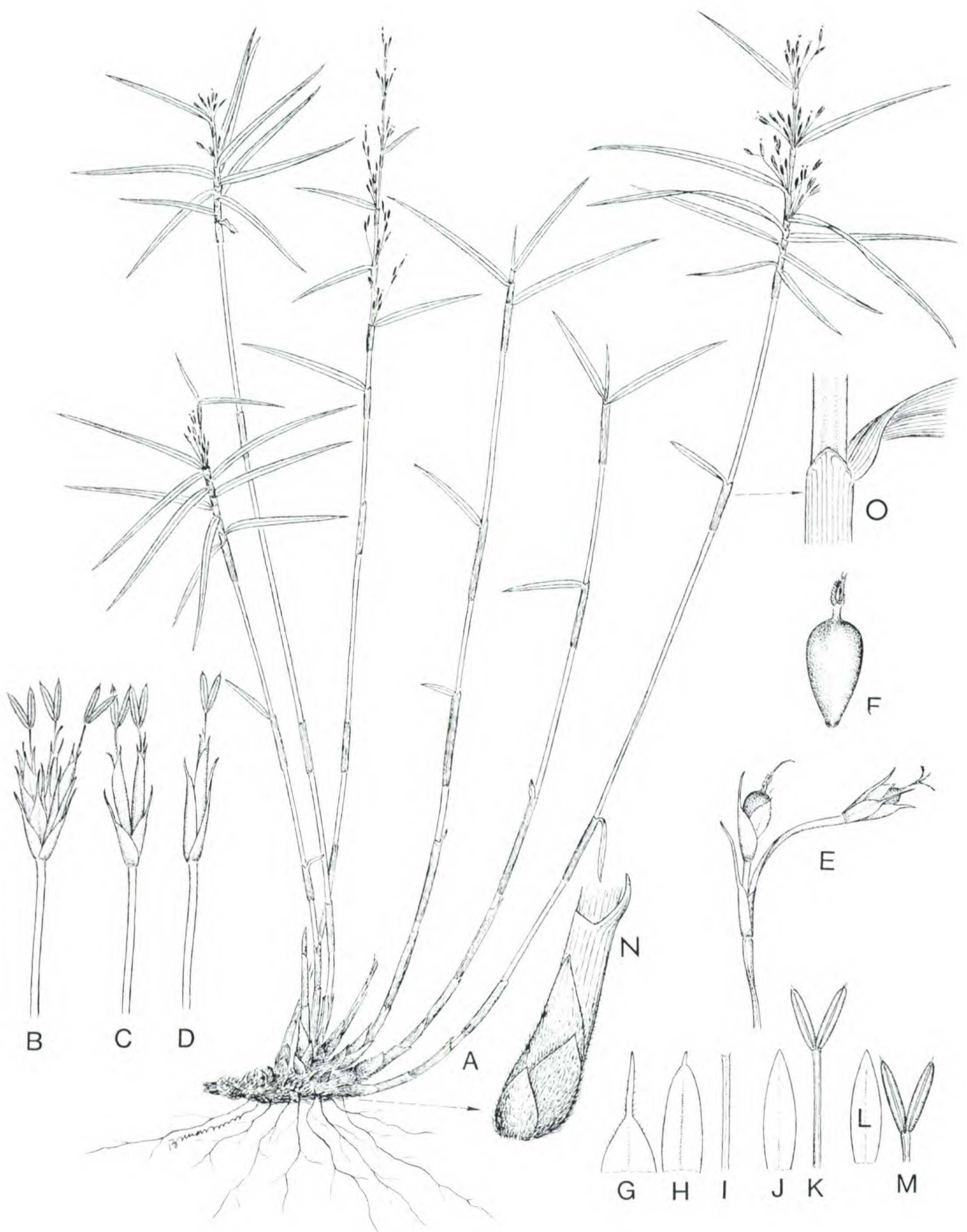


Figure 1. *Lagenocarpus amazonicus* Davidse. —A. Habit with the basal sheaths enlarged (N) to show the dense pubescence. B–D. Male spikelets at anthesis. —B. Three spikelets in cluster. —C. Two spikelets in cluster. —D. Solitary spikelet. —E. Female spikelets. —F. Achene. G–M. Dissection of male spikelet. —G. Lowest sterile floral bract. —H. Lowest fertile floral bract. —I. Lowest male flower consisting of 2 connate filaments with the anthers dehiscent and fallen. —J. Middle fertile floral bract. —K. Middle male flower with 2 connate filaments and 2 separate anthers, near anthesis. —L. Upper fertile floral bract. —M. Upper male flower with the connate filaments not yet elongated. —N. Densely pubescent scales at the base of a culm. —O. Detail of leaf showing the contraligule.

TABLE 1. Characters that distinguish *Lagenocarpus junciformis* from *L. amazonicus*.

Character	<i>L. junciformis</i>	<i>L. amazonicus</i>
Rhizome scales	Glabrous	Densely appressed pubescent
Basal bladeless sheaths	Tight	Loose
Basal culm node width	0.6–0.9 mm	1.7–2.9 mm
Blade width	0.4–1.8 mm	2.0–4.0 mm
Filaments	Separate	Connate
Female floral bracts	4–5	3–4
Achene texture	Papillose	Smooth but apically minutely papillose
Achene length	1.4–1.9 mm	1.8–2.3 mm
Style base shape	Conical-cylindrical	Cylindrical
Style base length	0.1–0.2 mm	0.3–0.4 mm
Style base pubescence	Apically glabrous	Apically puberulent

blades, the fully developed leaves clustered toward the apex of the culms, the primarily terminal inflorescences (sensu Koyama, 1972), and the sharply trigonous achenes, this species belongs to section *Junciformes* Koyama, which Koyama (1972) considered to have five species.

This species is only known from the two cited collections, and Koyama (1972) considered one of these, *Steyermark 105151*, to be *L. junciformis* (Kunth) Kuntze. He thus believed *L. junciformis* to have a bimodal distribution, i.e., in the Planalto of Brazil and in the Venezuelan Guayana. However, the two cited Guayanan collections differ from the Brazilian collections of this species in the characters listed in Table 1.

Especially notable distinguishing characteristics of *L. amazonicus*, and ones in which this species differs from all the others in the section, are the strongly pubescent rhizome sheaths and the connate stamen filaments.

The fusion of the filaments is a feature previously unknown in the genus and is known to me only in two other genera of Cyperaceae: *Scleria* Bergius and *Rhynchospora* Vahl. In *Scleria* it has been reported in *S. melanomphala* Kunth, *S. bequaertii* De Wild., and *S. glabroreticulata* De Wild. (Piérart, 1951: pl. 1, fig. 30, pl. 2, figs. 2, 9), and in

Rhynchospora it has been reported as “not unusual” in male flowers (Goetghebeur, 1986: 681), as, for example, in *R. confusa* Ballard (Ballard, 1934: t. 3250, fig. 4). That this feature is probably not a simple anomalous occurrence in *L. amazonicus* seems evident from the fact that all plants from the two known populations uniformly have it, even though they are separated by a distance of approximately 370 km.

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